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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,734

07/02/2003

Paul Zandbergen

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7590

08/18/2005

FORD GLOBAL TECHNOLOGIES, LLC.  
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DEARBORN, MI 48126

EXAMINER

GOODEN JR, BARRY J

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/611,734	Applicant(s) ZANDBERGEN ET AL.	
	Examiner Barry J. Gooden Jr.	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/1/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the A-frame arm in claim 9 must be shown or canceled from the claim. No new matter should be entered.
2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The abstract of the disclosure is objected to because the abstract must commence under the heading "Abstract" or "Abstract of the Disclosure". Correction is required. See MPEP § 608.01(b).
4. The abstract of the disclosure is objected to because the last sentence is unclear. Correction is required. See MPEP § 608.01(b).
5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the term "core" (page 3, paragraph 2; page 6, line 26; and page 7, line 15) is unclear.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Claim 5 uses the term flat in a contradictory manner. The terminology "non-flat cross section" is indefinite when used in conjunction with square shapes known to have flat surfaces.
9. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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10. Claim 7 recites the limitation "a core" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-7 and 9, as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Schroeder et al (US Patent 6,811,169 B2). Schroeder clearly shows a transverse composite leaf spring pivotally connected to the vehicle frame via a bearing. It is noted that a bearing as defined by Encarta.com is a, "housing for moving machine part: the part of a machine that supports a sliding or rotating part". Schroeder also clearly shows two portions connected via a first arc (Figure 4, Item 32). It is noted that Encarta.com defines a portion as, "a part or section of a larger whole". In response to claim 2, Schroeder also clearly shows a second arc curved in a direction opposite of the first arc (Figure 4, Item 42). In response to claim 3, Schroeder claims a composite spring connected at opposite ends to wheel assemblies (Claim 1, Lines 18-22). In response to claim 4, Schroeder clearly shows a transverse leaf spring with a middle region, having a flat cross section (Figure 7, Item 50), and in wheel side end regions a non-flat cross section (Figure 5, Item 80). In response to claim 5, Schroeder clearly

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claims a rectangular cross section (Claim 6, Line 16). It is noted that a square as defined by Encarta.com is an, "equilateral rectangle". In response to claim 6, Schroeder clearly describes glass fibers impregnated with a hardening substance (Column 2, Lines 39-41). In response to claim 7, as best understood, Schroeder describes a transverse leaf spring reinforced by fibers wound around a core (Column 2, Lines 35-45). In response to claim 9, Schroeder clearly shows a wheel carrier mounted on the motor vehicle body via an A-frame arm (Figure 3, Item 14).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeder in view of Heftler (US Patent 2,695,791). Schroeder discloses the claimed invention except for the coupled longitudinal link mounted on the motor vehicle body. Heftler teaches the use of longitudinally extending arms coupled to the ends of a transverse leaf spring as clearly shown in Figure 1. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the transverse leaf spring as taught by Schroeder to include longitudinal links, acting as thrust rods, coupled to the lower arms, thereby transferring the thrust forces to members better adapted to the reception of said forces.

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15. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeder in view of Allison (US Patent 3,250,546). Schroeder discloses the claimed invention except for the transverse leaf spring bearing having a thickening with axial ends consisting of planar surface pieces, the thickening surrounded by a casing of elastic material framed in a housing shell, and the elastic material being rubber. Allison teaches the use of a leaf spring suspension bushing. Allison clearly shows the bushing, according to the claim terminology. The bushing as seen in Figure 4 has a thickening with axial ends consisting of planar surface pieces, the thickening is encased in an elastic material which is framed in a housing shell, and the elastic material is clearly described as being rubber (Column 2, Line 24). It would have been obvious to one having ordinary skill in the art at the time of invention to modify the transverse leaf spring as taught by Schroeder to include the thickening thereby providing a more resilient means of securing the middle section of the leaf spring to the frame (Column 3, Lines 26-28).

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Woltron (US Patent 4,659,071) discloses the method of manufacture for a composite leaf spring of variable thickness along its length. Nishiya (US Patent 4,611,793) discloses an invention using a protrusion from a leaf spring made of fiber-reinforced plastics as a retaining plate locator.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry J. Gooden Jr. whose telephone number is (571) 272-5135. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Barry J. Gooden Jr.  
Examiner  
Art Unit 3616

BJG

  
ERIC CULBRETH  
PRIMARY EXAMINER